PATENT
674519-2001.4

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)	:	REED et al.
Serial No.	:	To Be Assigned (Divisional of USSN 09/579,163)
For	:	STEROID SULPHATASE INHIBITORS
Filed	:	Concurrently Herewith
Examiner	:	To Be Assigned (Predecessor Appln. Barbara Badio)
Art Unit	:	To Be Assigned (Predecessor Appln. 1616)

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EXPRESS MAIL

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Date of Deposit February 25, 2002

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PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Preliminary to Examination on the merits, please amend the application, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows:

IN THE SPECIFICATION:

Kindly amend the specification, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows:

Page 1, line 3, please rewrite the paragraph thereat as follows:

--**RELATED APPLICATIONS**

This application is a division of U.S. Application Serial No. 09/579,163, filed May 25, 2000, which in turn was a division of U.S. application Serial No. 09/238,345, filed January 27, 1999, which in turn was a division of U.S. application Serial No. 09/111,927, filed July 8, 1998, incorporated herein by reference and now U.S. Patent No. 6,011,024, which in turn was a continuation-in-part of U.S. application Serial No. 08/458,352, filed June 2, 1995, now U.S. Patent No. 5,830,886, which was a division of U.S. application Serial No. 08/196,192, filed (§102(e) date of) December 27, 1994, now U.S. Patent No. 5,616,574. U.S. application Serial No. 08/196,192 was the U.S. National Phase of PCT/GB92/01587, filed August 28, 1992 and designating the U.S, and incorporated herein by reference. U.S. application Serial No. 08/196,192 has a §371 date of December 27, 1994 and a §102(e) date of December 27, 1994. PCT/GB92/01587 was published as WO93/05064, has a publication date of March 18, 1993, and claims priority from United Kingdom patent application No. 9118478, filed August 29, 1991. USSN 09/111,927 was also a continuation-in-part of PCT patent application number PCT/GB97/00600, filed March 4, 1997, designating the U.S., and claiming priority from United Kingdom patent applications 9604709.7 and 9605725.2, filed March 5 and 19, 1996, respectively. PCT/GB97/00600 was published as WO 97/32872 on September 12, 1997. USSN 09/111,927 was also a continuation-in-part of PCT patent application number PCT/GB97/00444, filed February 17, 1997, designating the U.S., and claiming priority from United Kingdom patent application 9603325.3, filed February 16, 1996. PCT/GB97/00444 was published as WO 97/30041 on August 21, 1997. USSN 09/111,927 was also a continuation-in-part of PCT patent application number PCT/GB97/03352, filed December 4, 1997, designating the U.S., and claiming priority from United Kingdom patent application 9625334.9, filed December 5, 1996. PCT/GB97/03352 was published as WO 98/24802 on June 11, 1998. Each of PCT/GB97/00600 (WO 97/32872), PCT/GB97/00444 (WO 97/30041), and PCT/GB97/03352 (WO 98/24802) is

hereby incorporated herein by reference. In addition, The above-mentioned applications, as well as all documents cited herein and documents referenced or cited in documents cited herein, are hereby incorporated herein by reference.--

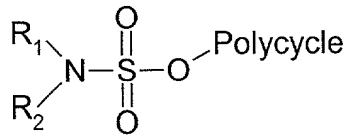
IN THE CLAIMS:

Kindly amend the claims, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows:

Kindly cancel claims 1-5 without prejudice.

Kindly add new claims 6-20, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows:

--6. A pharmaceutical composition comprising a pharmaceutically acceptable carrier or diluent and a compound of the formula



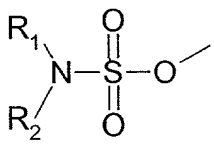
wherein each of R_1 and R_2 is independently selected from H, alkyl, alkenyl, cycloalkyl and aryl; wherein at least one of R_1 and R_2 is H; and

wherein the group Polycycle is a ring system comprising at least four rings, at least two of which are fused;

wherein the compound is an inhibitor of an enzyme having steroid sulphatase activity (E.C.3.1.6.2);

wherein if the sulphamate group on the compound were to be replaced with a sulphate group to form a sulphate compound and incubated with a steroid sulphatase enzyme (E.C.3.1.6.2) at a pH 7.4 and 37°C it would provide a K_m value of less than 50 μM.

7. A pharmaceutical composition comprising a pharmaceutically acceptable carrier or diluent and a compound comprising a steroidal ring structure and a sulphamate group of the formula

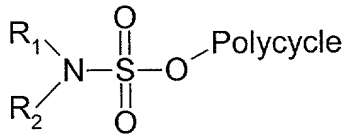


wherein each of R_1 and R_2 is independently selected from H, alkyl, alkenyl, cycloalkyl and aryl; wherein at least one of R_1 and R_2 is H; and

wherein the compound is an inhibitor of an enzyme having steroid sulphatase activity (E.C.3.1.6.2);

wherein if the sulphamate group on the compound were to be replaced with a sulphate group to form a sulphate compound and incubated with a steroid sulphatase enzyme (E.C.3.1.6.2) at a pH 7.4 and 37°C it would provide a K_m value of less than 50 μM.

8. A pharmaceutical composition comprising a pharmaceutically acceptable carrier or diluent and a compound of the formula



wherein each of R_1 and R_2 is independently selected from H, alkyl, alkenyl, cycloalkyl and aryl; wherein at least one of R_1 and R_2 is H; and

wherein the group Polycycle is a ring system comprising at least three rings, at least two of which are fused;

wherein the compound is an inhibitor of an enzyme having steroid sulphatase activity (E.C.3.1.6.2);

wherein if the sulphamate group on the compound were to be replaced with a sulphate group to form a sulphate compound and incubated with a steroid sulphatase enzyme (E.C.3.1.6.2) at a pH 7.4 and 37°C it would provide a K_m value of less than 50 μM;

wherein the compound is present in an amount to provide 100-500 mg of compound per unit dose.

9. A pharmaceutical composition according to claim 6 or 8, wherein the group Polycycle is a ring system comprising at least four rings, at least three of which are fused.

10. A pharmaceutical composition according to claim 7, wherein the steroidal ring structure is a residue of a 3-sterol.

11. A pharmaceutical composition according to claim 10, wherein the sterol is selected from the group consisting of oestrone, dehydroepiandrosterones, substituted oestrones and substituted dehydroepiandrosterones.

12. A pharmaceutical composition according to any one of claims 6 to 11 wherein R_1 and R_2 are independently selected from H, or a C_1-C_{10} alkyl; but wherein at least one of R_1 and R_2 is H.

13. A pharmaceutical composition according to any one of claims 6 to 12 wherein R_1 and R_2 are independently selected from H, or C_1-C_5 alkyl; but wherein at least one of R_1 and R_2 is H.

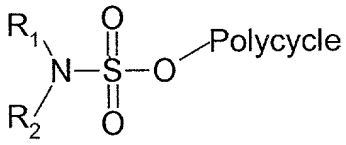
14. A pharmaceutical composition according to any one of claims 6 to 13 wherein R_1 and R_2 are independently selected from H or methyl; but wherein at least one of R_1 and R_2 is H.

15. A pharmaceutical composition according to any one of claims 6 to 12 wherein R_1 is H and R_2 is H.

16. A pharmaceutical composition according to any one of claims 6 to 15 wherein the compound is any one of oestrone 3-sulphamate, oestrone-3-N,N-dimethylsulphamate, oestrone-3-N-monomethylsulphamate.

17. A pharmaceutical composition according to claim 6 or 8 wherein the group Polycycle represents the residue of a sterol.

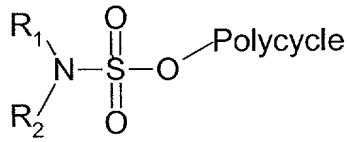
18. A pharmaceutical composition according to claim 7 wherein the compound is a compound of the formula



wherein the group Polycycle represents the residue of a sterol, and wherein R_1 and R_2 are as defined in claim 7.

19. A pharmaceutical composition according to claim 17 or 18, wherein the sterol is a 3-sterol.

20. A pharmaceutical composition according to claim 7 wherein the compound is a compound of the formula



wherein the group Polycycle represents the residue of a 3-sterol, and wherein R_1 and R_2 are H.--

REMARKS

The amendments to the application herein are made simply to properly designate the lineage of the application and to submit claims for examination. An early and favorable examination on the merits is respectfully requested.

Respectfully submitted,
FROMMER LAWRENCE & HAUG LLP

By: ______________________

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Page 1, line 3:

RELATED APPLICATIONS

This application is a division of U.S. Application Serial No. 09/579,163, filed May 25, 2000, which in turn was a division of U.S. application Serial No. 09/238,345, filed January 27, 1999, which in turn was a division of U.S. application Serial No. 09/111,927, filed July 8, 1998, incorporated herein by reference and now U.S. Patent No. 6,011,024, which in turn was a continuation-in-part of U.S. application Serial No. 08/458,352, filed June 2, 1995, now U.S. Patent No. 5,830,886, which was a division of U.S. application Serial No. 08/196,192, filed (§102(e) date of) December 27, 1994, now U.S. Patent No. 5,616,574. U.S. application Serial No. 08/196,192 was the U.S. National Phase of PCT/GB92/01587, filed August 28, 1992 and designating the U.S, and incorporated herein by reference. U.S. application Serial No. 08/196,192 has a §371 date of December 27, 1994 and a §102(e) date of December 27, 1994. PCT/GB92/01587 was published as WO93/05064, has a publication date of March 18, 1993, and claims priority from United Kingdom patent application No. 9118478, filed August 29, 1991. USSN 09/111,927 was also a continuation-in-part of PCT patent application number PCT/GB97/00600, filed March 4, 1997, designating the U.S., and claiming priority from United Kingdom patent applications 9604709.7 and 9605725.2, filed March 5 and 19, 1996, respectively. PCT/GB97/00600 was published as WO 97/32872 on September 12, 1997. USSN 09/111,927 was also a continuation-in-part of PCT patent application number PCT/GB97/00444, filed February 17, 1997, designating the U.S., and claiming priority from United Kingdom patent application 9603325.3, filed February 16, 1996. PCT/GB97/00444 was published as WO 97/30041 on August 21, 1997. USSN 09/111,927 was also a continuation-in-part of PCT patent application number PCT/GB97/03352, filed December 4, 1997, designating the U.S., and claiming priority from United Kingdom patent application 9625334.9, filed December 5, 1996. PCT/GB97/03352 was published as WO 98/24802 on June 11, 1998. Each of PCT/GB97/00600 (WO 97/32872), PCT/GB97/00444 (WO 97/30041), and PCT/GB97/03352 (WO 98/24802) is hereby incorporated herein by reference. In addition, The above-mentioned applications, as well as all documents cited herein and documents referenced or cited in documents cited herein, are hereby incorporated herein by reference.

[This application is a continuation-in-part of US application number USSN 08/458,352 which was a continuation of US application number USSN 08/196,192 which was derived from PCT/GB92/01587 which was originally published as WO 03/05064. This application is also a continuation-in-part of PCT patent application number PCT/GB97/00600 filed on 4 March 1997 and published as WO 97/32872 and which designates the USA – the contents of which are incorporated herein by reference. This application is also a continuation-in-part of PCT patent application number PCT/GB97/00444 filed on 17 February 1997 and published as WO 07/30041 and which designates the USA – the contents of which are incorporated herein by reference. This application is also a continuation-in-part of PCT patent application number PCT/GB97/03352 filed on 4 December 1997 and published as WO 98/24802 and which designates the USA – the contents of which are incorporated herein by reference.]